STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0097926
Owner:	Engineered Support Systems, Inc.
Address:	201 Evans Lane, St. Louis, MO 63121
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Engineered Coil Company, dba Marlo Coil
Address:	6060 Highway PP, High Ridge, MO 63049
Legal Description:	SE ¼, NE ¼, NE ¼, Sec. 22, T43N, R4E, Jefferson County
Receiving Stream:	Tributary to Antire Creek (U)
First Classified Stream and ID:	Antire Creek (P) (02188)
USGS Basin & Sub-watershed No.:	(07140102-080001)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

July 11, 2003
Effective Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

July 10, 2008
Expiration Date

Jim Hull, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - Domestic - SIC #4952
Extended aeration/year around chlorination/aerated sludge holding tank/sludge disposal is by contract hauler.
Design population equivalent is 59.
Design flow is 3,000 gallons per day.
Actual flow is 2,430 gallons per day.
Design sludge production is 1.06 dry tons/year.
Actual sludge production is 0.81 dry tons/year.

Outfall #002 – Industrial – SIC #3585
Industry Process Water
Back flush of rinse tank filter on East Plant paint line.
Design flow is 600 gallons per day.
Actual flow is 50 gallons per day.

Outfall #003 – Industrial – SIC #3585
Industry Process Water/Stormwater
Boiler blowdown, Softener backwash, East building roof drain.
Design flow, including stormwater, is 5,600 gallons per day, actual flow dependent upon precipitation. Actual flow of process water is 18 gallons per day.

Outfall #004 – Industrial – SIC #3585
Industry Process Water/Stormwater
Vehicle and equipment washing, flushing coils, coil test tank backwash, intermittent roof runoff.
Design flow, including stormwater, is 9,500 gallons per day.
Actual flow of process water is 288 gallons per day.

Outfall #005 – Industrial – SIC #3585
Industry Process Water
Back flush of Navy Products line rinse tank filter.
Design flow is 300 gallons per day.
Actual flow is 25 gallons per day.

Outfall #007 – Industrial – SIC #3585
Industry Stormwater runoff, East Building roof.
Design flow is 325,413 gallons per day
Flow dependent upon precipitation.

Outfall #008 – Industrial – SIC #3585
Industry Stormwater runoff, West Building roof.
Design flow is 298,080 gallons per day.
Flow dependent upon precipitation.

PERMIT NUMBER MO-0097926

A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until April 30, 2006. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L		15	10	once/quarter**	grab
Total Suspended Solids	mg/L		20	15	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Fecal Coliform	#/100mL	1000		400	once/quarter**	grab
Total Residual Chlorine (Note 1)	mg/L	1.0		1.0	once/quarter**	grab
Outfalls #002 - #005 Flow	MGD	*		*	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/quarter**	grab
Chemical Oxygen Demand	mg/L	*		*	once/quarter**	grab
Ammonia as N	mg/L	*		*	once/quarter**	grab
Phosphorous as P, Total	mg/L	*		*	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Settleable Solids	ml/L/hr	1.0		0.5	once/quarter**	grab
Chromium, Total Recoverable	mg/L	*		*	once/quarter**	grab
Copper, Total Recoverable	mg/L	*		*	once/quarter**	grab
Barium, Total Recoverable	mg/L	*		*	once/quarter**	grab
Iron, Total Recoverable	mg/L	*		*	once/quarter**	grab
Aluminum, Total Recoverable	mg/L	*		*	once/quarter**	grab
Zinc, Total Recoverable	mg/L	*		*	once/quarter**	grab
Boron, Total Recoverable	mg/L	*		*	once/quarter**	grab
Temperature	°F	95		*	once/quarter**	grab
Outfalls #007 & #008 Flow	MGD	*		*	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/quarter**	grab
Chemical Oxygen Demand	mg/L	120		60	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Settleable Solids	ml/L/hr	1.0		0.5	once/quarter**	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE October 28, 2003. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective May 1, 2006 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Instream Monitoring shall be conducted at the following locations: Upstream – Just upstream of plant outfalls where stream is not influenced by the outfalls. Downstream – DS #1 at approximately 50 yards downstream of outfall #008, and DS #2 at beginning of classified portion of Antire Creek in Antire Valley County Park.						
Chromium, Total Recoverable	mg/L	*		*	once/quarter**	grab
Copper, Total Recoverable	mg/L	*		*	once/quarter**	grab
Barium, Total Recoverable	mg/L	*		*	once/quarter**	grab
Iron, Total Recoverable	mg/L	*		*	once/quarter**	grab
Aluminum, Total Recoverable	mg/L	*		*	once/quarter**	grab
Zinc, Total Recoverable	mg/L	*		*	once/quarter**	grab
Boron, Total Recoverable	mg/L	*		*	once/quarter**	grab
Temperature	°C	*		*	once/quarter**	grab
pH-Units	SU	*		*	once/quarter**	grab

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MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** Sample once per quarter in the months of February, May, August and November.
*** pH is measured in pH units and is not to be averaged. The pH shall not be less than 6.0, or greater than 9.0, unless the pH of the incoming water supply exceeds 9.0.

Note 1 - This permit contains a Total Residual Chlorine (TRC) limit.

a. The TRC limit in this permit is 1.0 mg/L; an analytical method with a quantification limit between 0.2 and 0.5 mg/L shall be used. All analytical values below the quantification limit shall be reported as "<quantlim." All analytical values at or above the quantification limit shall be reported as the measured value.

The average monthly effluent values for TRC will be determined by assuming that analytical results below the quantification limit are equivalent to 0 mg/L when calculating the monthly average.The daily effluent value will be considered equal to 0 mg/L if it is below the quantification limit.

b. Disinfection is required year-round.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

4. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established in Part A of the permit by the Director.
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

6. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
   (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
   (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

C. SPECIAL CONDITIONS (continued)

7. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
   (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
   (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
   (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
   (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
   (e) There shall be no significant human health hazard from incidental contact with the water;
   (f) There shall be no acute toxicity to livestock or wildlife watering;
   (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
   (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.